



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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247720

Date:	Fax #: (312) 886-0747
Company/Division:	Telephone #:
To: RICH MURASKI, VERNETA SIMON	
From: RYAN GROVES	Telephone #: (317) 233-2406 Fax #:
Office/Branch/Section: IDEM STATE CLEANUP	Number of Pages (including cover): 13
Comments: RICH & VERNETA, LETTER ON RESULTS OF IDEM'S GW SAMPLING AT CALLUMET CONTAINER. CALL IF YOU HAVE QUESTIONS. RYAN	

IDEM Location	Indiana Government Center North	Fax Number Area Code (317)	Confirm Number Area Code (317)
Commissioner's Office		233-6647	232-8162
Enforcement		233-5968	233-5529
Land Quality		232-3403	232-4473
Land Quality		234-0428	233-2570
Water Quality		233-5968	233-5529
Air Quality		232-8406	232-8670
Legal Counsel		233-5967	233-0178
Media & Communications		233-5517	232-8753
Office of Mgmt., Budget, & Admin.		232-8564	232-8560
Information Technology		232-5539	232-8180
Purchasing		233-6276	232-0764
Office of Pollution Prevention		233-5627	233-5434
	Western Select Properties	Area Code (317)	Area Code (317)
Drinking Water		308-3339	308-3280
Water-Assessment		308-3219	308-3176
Water-Drinking Water Compliance		308-3340	308-3282
Air Quality		308-3239	308-3236
and Quality Compliance Branch		308-3063	308-3017
	Regional Offices		
Northwest Office	Merrillville, IN	(219) 757-0267	(219) 757-0265
North Central Office	South Bend, IN	(574) 245-4877	(574) 245-4870
Southwest Office	Petersburg, IN	(812) 380-2304	(812) 380-2305



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.in.gov/idem

August 17, 2005

VIA FACSIMILE

Ms. Verneta Simon, On-Scene Coordinator
Superfund Removal Program
United States Environmental Protection Agency
77 West Jackson Blvd., SE-5J
Chicago, Illinois 60604

Dear Verneta:

Re: Ground Water Sample Results
Calumet Container Site
Hammond, Lake County, IN
IDEM Site No. 0000001

In response to your request for an update on the condition of the ground water quality at the Calumet Container Site the Indiana Department of Environmental Management (IDEM) provides this letter to detail the results of our recent ground water sampling events. Based upon the ground water sample data collected by IDEM during sampling events conducted in December 2004 and June 2005 it has been determined that ground water is only minimally impacted. The impacts to ground water do not pose a threat to human health and the environment at this time and future ground water remedial action is unwarranted at this time. The impacts noted during the recent sampling events indicate that contaminant concentrations are slightly above IDEM's Risk Integrated System of Closure (RISC) default residential closure objective for ground water. The contaminant concentrations do not exceed the RISC default industrial closure objectives.

Specifically, the IDEM sampling events included sampling the ground water from seventeen monitoring wells located on the Calumet Container Site. The ground water was analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), poly-chlorinated biphenyls (PCBs), total metals, cyanide, and pesticides. The monitoring wells included in the sampling were MW 1 through MW 9, MW 11, MW 12, and MW 18 through MW 23. The monitoring wells include a mixture of shallow, intermediate, and bedrock wells. Detections of benzene, 1,2,4-trimethylbenzene, and naphthalene were noted in monitoring well MW 8 above each respective contaminants IDEM RISC default residential closure objective. Chromium was detected above its respective IDEM RISC default residential closure objective at location MW 6. No contaminants exceeded their respective IDEM RISC default industrial closure objective. Please refer to the attached data tables and site maps for specific contaminant detections, concentrations, and locations of specific monitoring wells.

Ms. Verueta Simon
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In addition, IDEM conducted gauging of ground water at each monitoring well immediately prior to sampling. The purpose of the gauging events was to establish baseline ground water elevations at each well to determine seasonal aquifer fluctuation and establish ground water flow direction. The attached tables and maps include ground water elevations and ground water flow maps for each sampling event. Generally, IDEM has determined that the primary ground water direction in the shallow and intermediate aquifer zones is to the north/northeast across the Calumet Container Site. The deeper bedrock aquifer is shown to flow primarily to the northwest. Monitoring well MW 8 is a shallow well located in an up-gradient location on the Calumet Container Site. The recent ground water sampling and gauging events do not indicate off-site contaminant migration.

In conclusion, IDEM has conducted two inclusive ground water sampling and gauging events at the Calumet Container Site. Detections of contaminants above the IDEM RISC default residential closure objective have been noted. However, IDEM does not consider the ground water impacts to be a current threat to human health or the environment and has determined that ground water remedial action is unwarranted at this time.

I hope that this letter has answered your questions concerning the current ground water quality at the Calumet Container Site and the results of the December 2004 and June 2005 ground water sampling events. If you have any further questions regarding the above matters please contact the undersigned at (317) 233-2406.

Sincerely,



Ryan L. Groves, Senior Project Manager
State Cleanup Section
Office of Land Quality

RLG:tr

Attachments:

cc: IDEM project file

Janice Lengel, IDEM, Office of Legal Counsel

Ron Novak, Environmental Coordinator, City of Hammond (w/attachments, via facsimile)

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Metals

Site Name: Calumet Container
 Sample Number: 0000001
 Location: Hammond, Lake County, IN
 Date Sampled: 2-Jun-05
 Date Reported: 5-Jul-05
 Sample Numbers: LQ2362 - LQ2378
 b: ARDL

Water

UNITS: mg/L

Sample #	Type/ID#	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Cyanide	Free Cyanide
Lab	IDEM	D.L. >									
	USC Residential Default Closure Level	0.05	2	0.005	0.1	0.015	0.002	0.05	0.18	NA	0.2
	MCL	0.01	2	0.005	0.1	0.015	0.002	0.05	NA	0.2	NA
239-1	LQ2362	MW-23, water	0.0173 J			0.0023 J					
239-2	LQ2363	MW-4, water	0.0081	0.251		0.0056	0.0074 J	0.0096 J			
239-3	LQ2364	MW-5, water	0.0042 J	0.358		0.0081 J	0.0049 J	0.0019 J			
239-4	LQ2365	MW-11, water		0.156			0.0036 J	0.0020 J		0.0145	
239-5	LQ2366	MW-12, water		0.0474			0.0056 J				
239-6	LQ2367	MW-18, water	0.0053	0.313		0.0104	0.0324	0.0082 J		0.0084 J	
239-7	LQ2368	MW-19, water	0.0019 J	0.348		0.0052	0.0042 J			0.0086 J	
239-8	LQ2369	MW-22, water		0.0323			0.008				
239-9	LQ2370	MW-8, water	0.0024 J	0.219		0.0031 J	0.0136	0.0018 J			
39-10**	LQ2371**	MW-9, water	0.0046 J	0.212			0.0041 J	0.002 J			
39-11**	LQ2372**	MW-9, water	0.005	0.248			0.0041 J	0.0025 J			
239-12	LQ2373	MW-6, water	0.0194	0.0848		0.206	0.0988	0.0018 J		0.0183	
239-13	LQ2374	MW-7, water	0.0041 J	0.242		0.0042 J	0.0074 J	0.0024 J			
239-14	LQ2375	MW-1, water		0.0355			0.0044 J				
239-15	LQ2376	MW-2, water	0.0055	0.24			0.0030 J			0.0247	
239-16	LQ2377	MW-3, water	0.0032 J	0.317			0.0037 J	0.002 J		0.0347	
239-17	LQ2378	Trip Blank									

LANK (Type indicated)

Empty Box indicates NON-DETECTABLE

FIELD DUPLICATE

NR = NOT RUN

NA=NOT AVAILABLE

detected below contract required detection limit but above the method detection limit

Estimated

Bold = above action level or MCL

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Semi-Volatile Organic Analysis

Name: Calumet Container
 Number: 0000001
 Location: Hammond, Lake County, IN
 Sampled: 2-Jun-05
 Reported: 5-Jul-05
 Sample Numbers: LQ2362 - LQ2378
 ARDL

Water

UNITS: ug/L

Sample #	Type/ID#	bis(2-ethylhexyl)	2,6-dinitro	2,4-dinitro	Diethyl	Di-n-butyl	Butylbenzyl	bis(2-ethylhexyl)	Fluorene	# of TICs	Estimated Concentrations
Lab	IDEM	adipate	toluene	toluene	phthalate	phthalate	phthalate	phthalate			
	D.L. >	2	1	1	2	2	2	2	1		
SC Residential Default Closure Levels		NA	1.3	1.3	29,000	3,700	2,700	6	310		
	MCL	NA	NA	NA	NA	NA	NA	6	NA		
39-1	LQ2362	MW-23, water	65 J		25 J	1.6 J	1.12 J	2 J		19	46.2
39-2	LQ2363	MW-4, water	59 J		19 J	1.5 J	21 J	1.4 J		20	101.2
39-3	LQ2364	MW-6, water	81 J		19 J	49 J	29 J	97 J		20	164
39-4	LQ2365	MW-11, water	42 J		14 J	66 J		1.1 J		9	120
39-5	LQ2366	MW-12, water	39 J		17 J	54 J		97 J		9	139.3
39-6	LQ2367	MW-18, water	42 J		11 J	60 J		1.3 J		9	179.6
39-7	LQ2368	MW-19, water	22 J			30 J		46 J		4	149.5
39-8	LQ2369	MW-22, water	16 J			26 J		40 J		12	28
39-9	LQ2370	MW-8, water	28 J		21 J	47 J		17 J		20	288
39-10**	LQ2371**	MW-9, water	25 J			26 J		47 J		10	101
39-11**	LQ2372**	MW-9, water	24 J			23 J		80 J		9	94
39-12	LQ2373	MW-6, water	0.29 J		11 J	38 J		1.2 J		14	49.2
39-13	LQ2374	MW-7, water	43 J		0.08 J	34 J		85 J		3	8.8
39-14	LQ2375	MW-1, water	36 J	21 J	103	27 J		88 J		7	16.9
39-15	LQ2376	MW-2, water	28 J		12 J	33 J		61 J		8	47.5
39-16	LQ2377	MW-3, water	32 J		10 J	44 J		49 J		14	22.2
39-17	LQ2378	Trip Blank									

ANK (Type indicated)

Empty Box indicates NON-DETECTABLE

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detected below contract required detection limit but above the method detection limit

analyte detected in the blank

Estimated

Bold = above action level or MCL

Volatile Organic Analysis

Name: Calumet Container
 Number: 000001
 Non: Hammond, Lake County, IN
 Sampled: 2-Jun-05
 Reported: 6-Jul-05
 File Numbers: LO2282 - LO2978
 AROL

Water

UNITS: ug/L

Sample #	Type/ID#	Chloroform	Methylene Chloride	n-Butyl benzene	Naphthalene	Chloro m-xylene	Toluene	Ethyl benzene	Xylenes	1,3,4-Tribenzoxy benzene	Benzene	m-Isopropyl benzene	n-Propyl benzene	1,2,5-Trimethyl benzene	p-Isopropyl benzene	1,1-Dimethyl ethane	sec-butyl benzene	# of TICs	Estimated Concentration	
1b	IDEM	D.L.	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1		
C Residential Decont Closure Level		80	5	NA	0.3	NA	1,000	700	10,000	16	5	NA	NA	16	NA	7	NA			
	MCL	80	5	NA	NA	NA	1,000	700	10,000	70	5	NA	NA	NA	NA	7	NA			
9-1	LO2282	MW-28, water	0.44-J																1	1.0
9-2	LO2383	MW-4, water																	5	19.7
9-3	LO2384	MW-5, water																	6	28.05
9-4	LO2385	MW-11, water																	5	8.2
9-5	LO2386	MW-12, water	0.28-J																5	8.5
9-6	LO2387	MW-18, water																	7	2.2
9-7	LO2388	MW-19, water	1.5																4	4.8
9-8	LO2389	MW-22, water																	6	0.9
9-9	LO2370	MW-8, water	0.29-J		1.8														10	270.0
10**	LO2371**	MW-8, water																	10	16
11**	LO2372**	MW-8, water	1.8		1														10	15.8
9-12	LO2373	MW-8, water	0.60-J																2	0.8
9-13	LO2374	MW-7, water	1.96-J																1	0.1
9-14	LO2375	MW-1, water	1.83-J																3	0.6
9-15	LO2376	MW-2, water	2.5																1	0.9
9-16	LO2377	MW-9, water	1.75-J																3	0.6
9-17	LO2378	Trip Blank	1.2 J																1	0.1

NR (Type indicated) Empty Box indicates NON-DETECTABLE

EDU DUPLICATE NR = NOT RUN

NA=NOT AVAILABLE

selected below contract required detection limit but above the method detection limit

Bold = above action level or MCL

CALUMET CONTAINER
Monitoring Well Rehabilitation - June 24, 2004
Aquifer Gauging and Sampling Events dated December 13, 2004 and June 1, 2005

WELL ID.	Aqui-fer Class	SURF ELEV	DTW 12/13 2004	GWEL 12/13 2004	DTB 6/24 2004	DTB 12/13 2004	SEDI-MENT RMVD	DTW 6/01 2005	GWEL 6/01 2005	DTB 6/01 2005
MW-22	D	589.75	15.85	573.90	53.62	54.56	0.94	15.94	573.81	53.50
MW-9	I	588.06	4.59	583.47	21.33	21.25	-0.08	4.99	583.07	22.18
MW-8	S	588.40	4.95	583.45	12.40	16.98	4.58	5.28	583.12	16.80
MW-7	I	587.01	3.68	583.33	19.94	25.20	5.26	4.80	582.21	25.40
MW-6	S	587.08	3.76	583.32	11.08	13.41	2.33	4.90	582.18	13.26
W-16	I	586.90	NM	NM	24.21	24.21	0	NM	NM	NM
PW-10	I	586.72	NM	NM	23.89	23.89	0	NM	NM	NM
OW-14	S	587.09	NM	NM	8.68	8.68	0	NM	NM	NM
OW-13	S	586.82	NM	NM	12.86	12.86	0	NM	NM	NM
OW-15	S	586.56	NM	NM	10.37	10.37	0	NM	NM	NM
OW-17	I	586.35	NM	NM	24.28	24.28	0	NM	NM	NM
OW-12	S	586.54	3.14	583.40	9.76	9.69	-0.07	4.72	581.82	9.65
OW-11	S	586.49	3.07	583.42	12.51	12.86	0.35	4.72	581.77	11.72
MW-18	S	586.68	3.38	583.30	10.33	15.51	5.18	5.20	581.48	15.43
MW-19	I	587.09	3.19	583.90	16.89	21.80	4.91	5.62	581.47	21.52
MW-23	D	586.12	15.91	570.21	59.31	59.25	-0.06	16.38	569.74	59.20
MW-5	I	585.54	2.82	582.72	19.44	21.78	2.34	4.45	581.09	21.65
MW-4	S	585.62	2.85	582.77	10.30	16.26	5.96	4.55	581.07	16.19
MW-1	D	585.55	19.0	566.65	81.95	81.90	-0.05	18.94	566.61	81.84
MW-2	S	585.81	3.16	582.65	14.70	15.41	0.71	4.83	580.98	15.32
MW-3	I	585.70	3.12	582.58	19.16	23.11	3.95	4.72	580.98	22.92
MW-20	I	585.37	3.43	581.94	22.47	31.83	9.36	NM	NM	NM
MW-21	S	585.33	2.51	582.82	10.03	8.66	-1.37	NM	NM	NM

Aquifer Class: S - Shallow, I - Intermediate, D - Deep/Bedrock

NM - Not Measured or Sampled

DTW - Depth to Static Water Level

GWEL - Groundwater Elevation (Mean Sea Level)

DTB - Depth to Bottom

Maps and Tables prepared by P. B. Schonhoff - Geological Services/OLQ/ IDEM 8/15/05

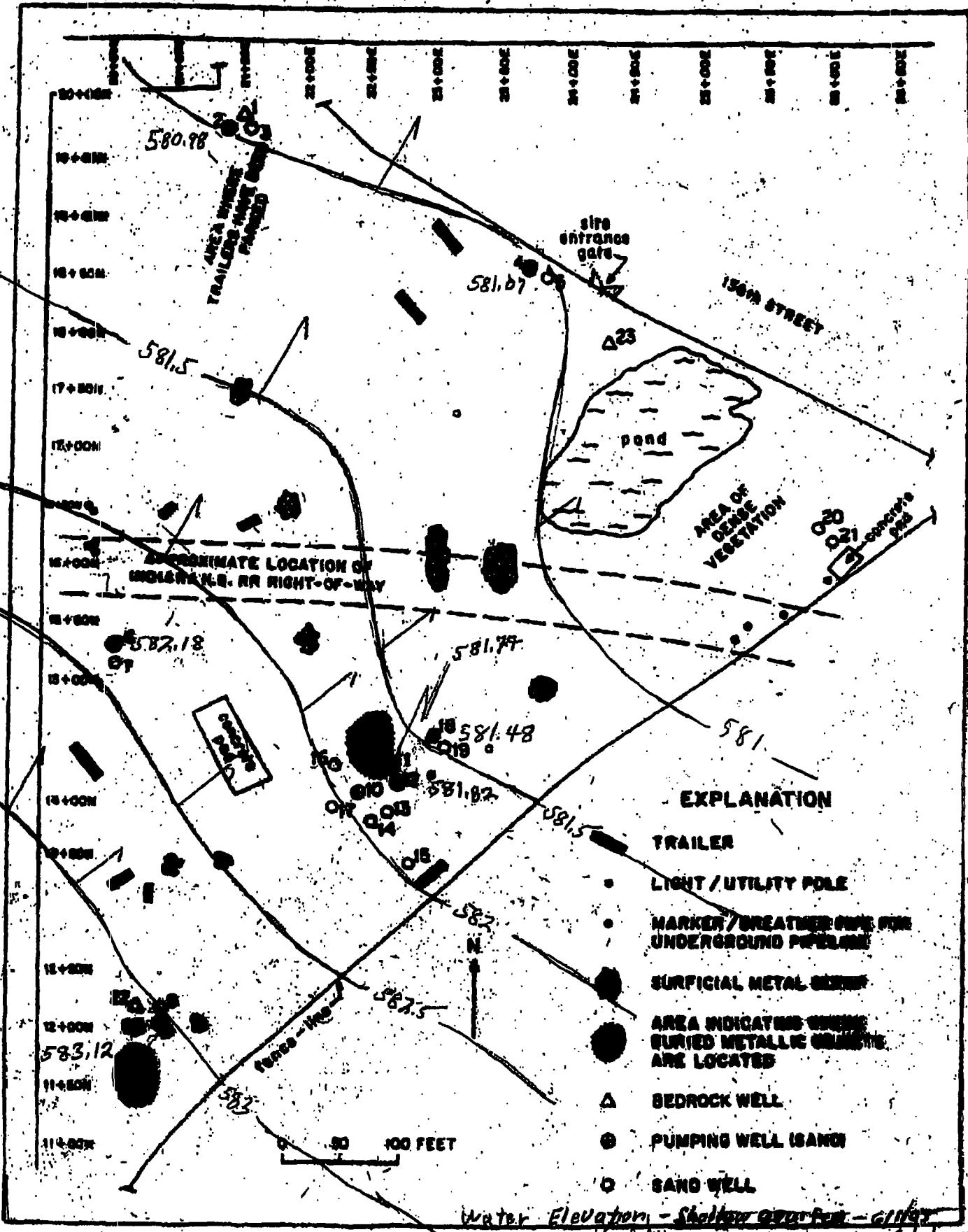
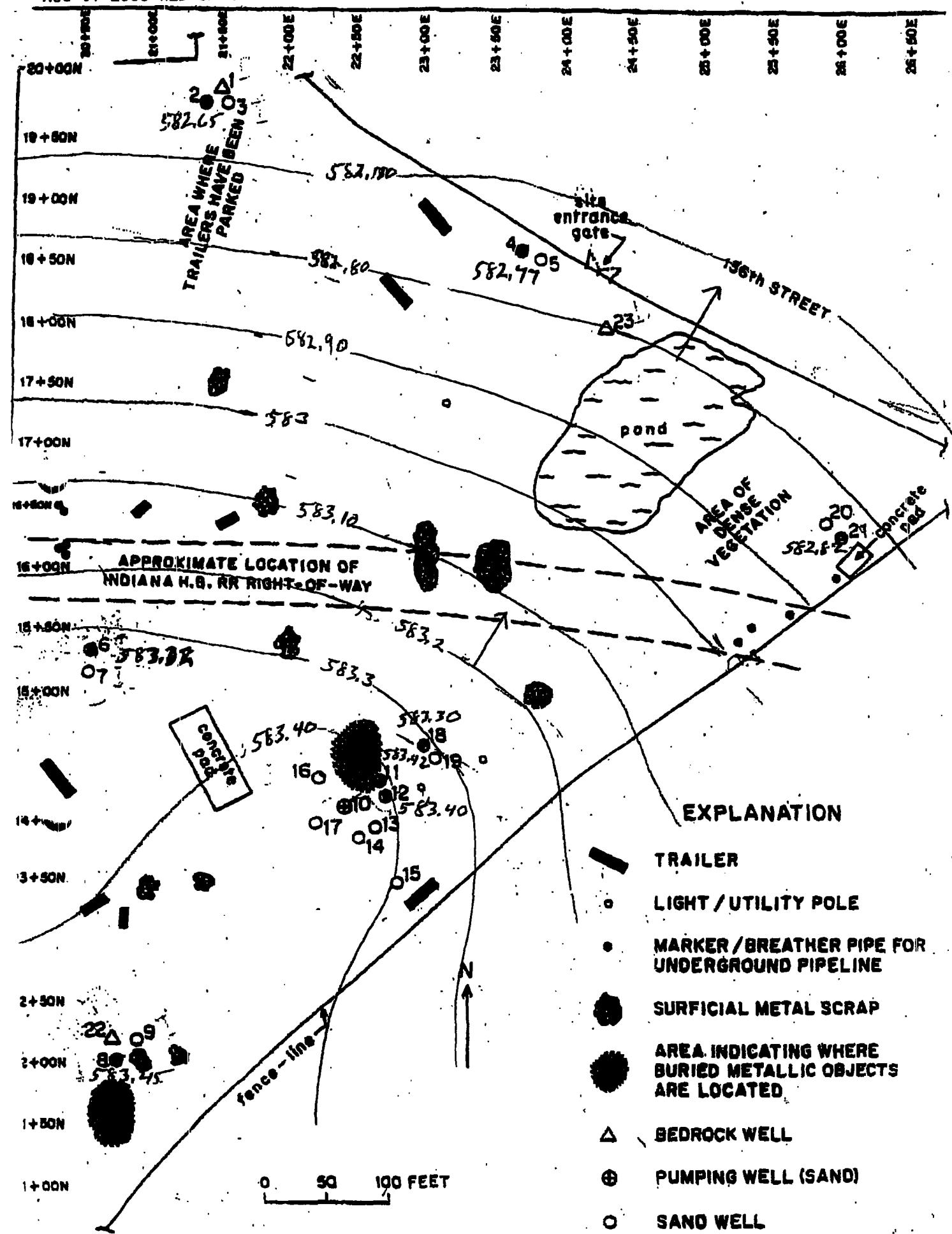


Figure 2.1 Map showing location of wells on the Calumet Container Site.



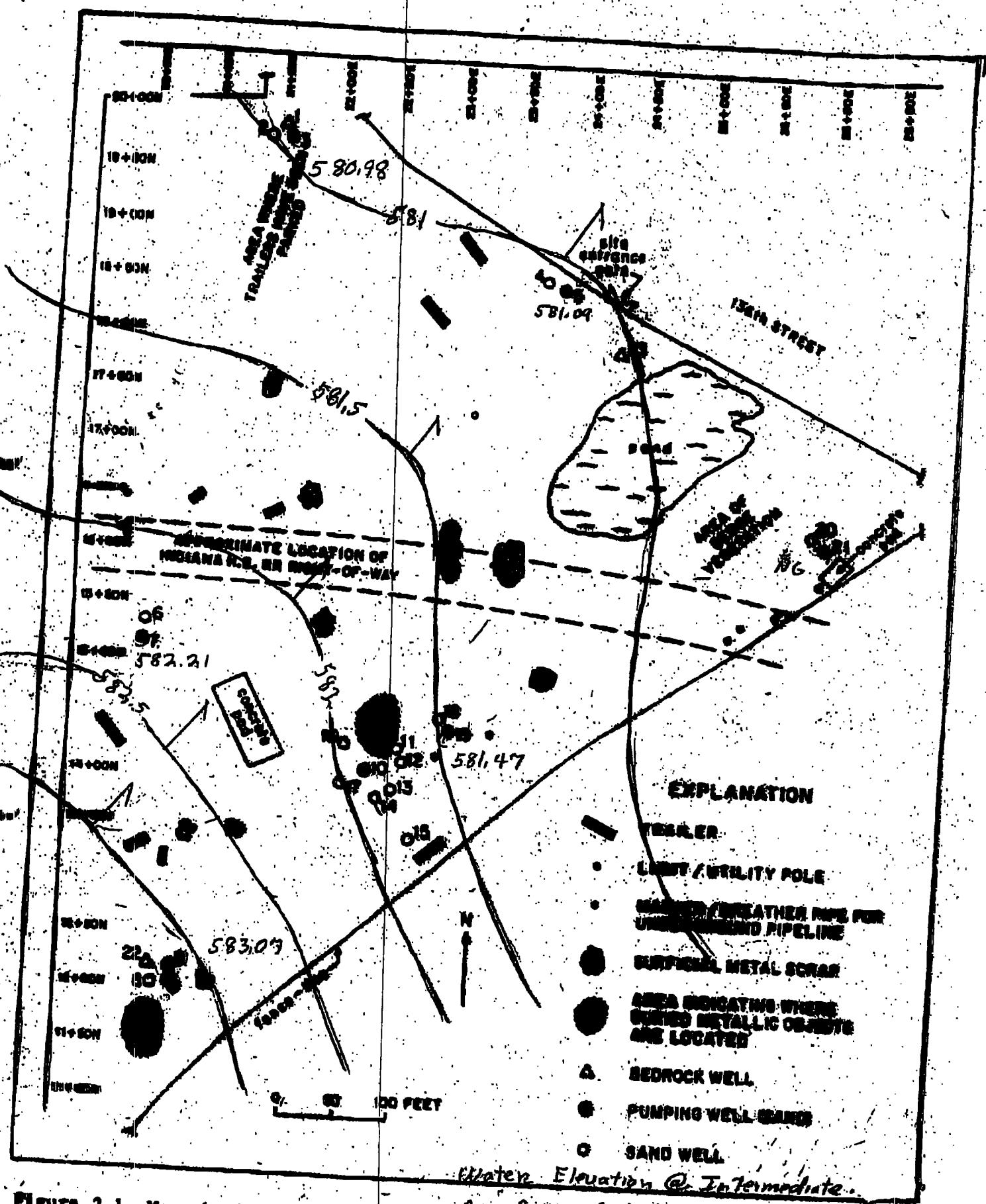
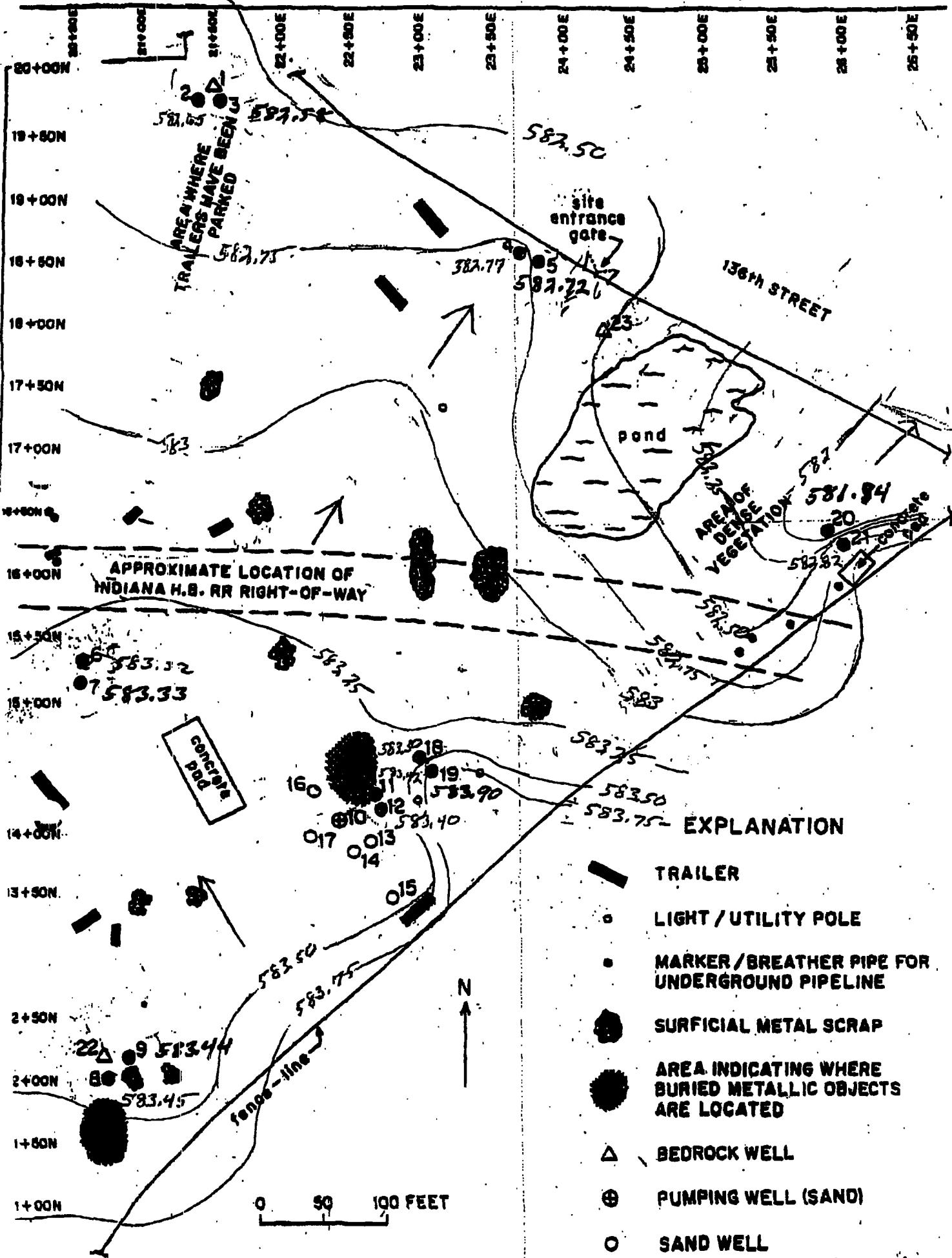


Figure 2.1 Map showing location of wells on the Calumet Container Site.

**EXPLANATION****TRAILER****LIGHT / UTILITY POLE****MARKER / BREATHER PIPE FOR UNDERGROUND PIPELINE****SURFICIAL METAL SCRAP****AREA INDICATING WHERE BURIED METALLIC OBJECTS ARE LOCATED****BEDROCK WELL****PUMPING WELL (SAND)****SAND WELL**

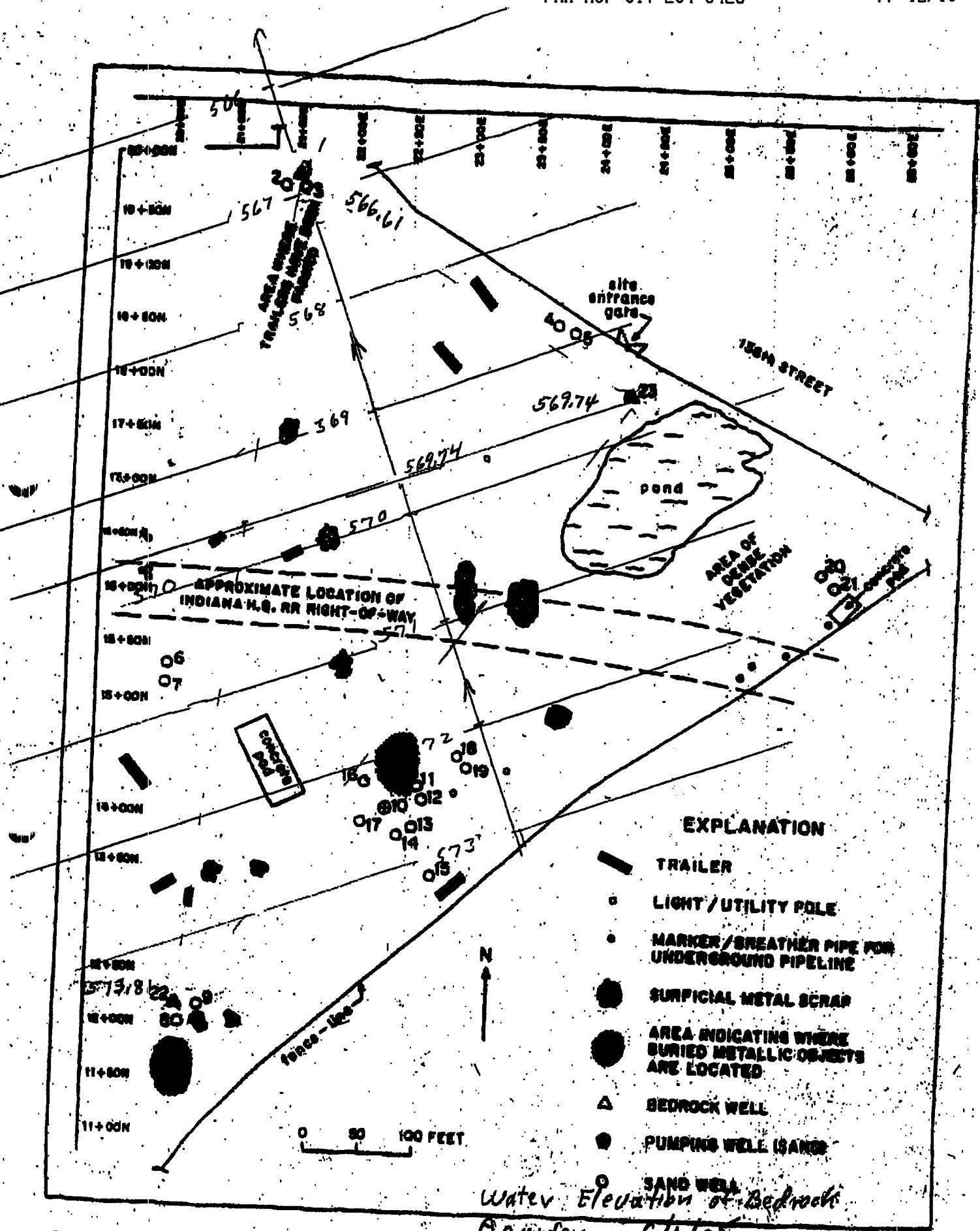
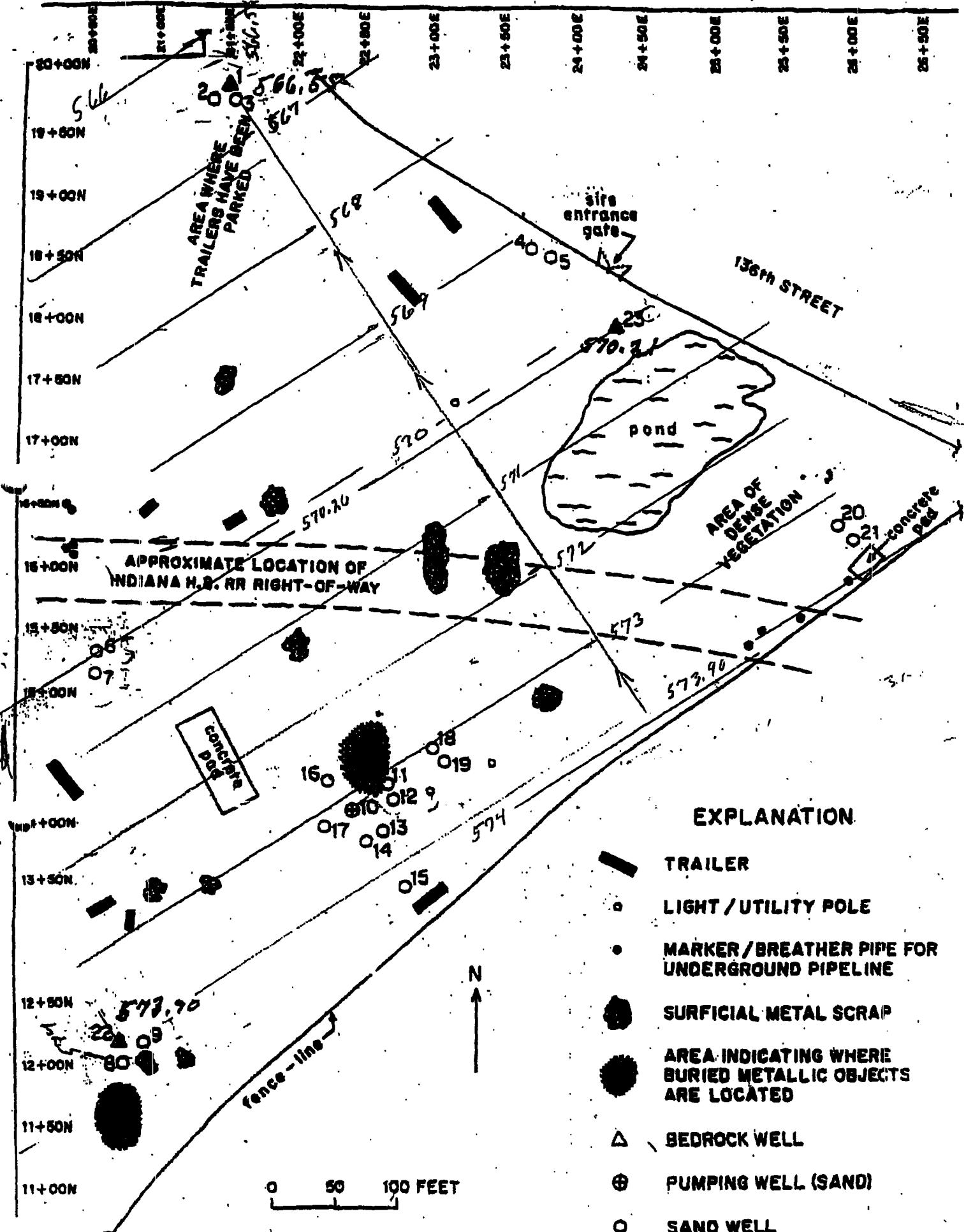


Figure 2.1 Map showing location of wells on the Calumet Container Site.
Aquafor - 6/1/05

**EXPLANATION****TRAILER****LIGHT / UTILITY POLE****MARKER / BREATHER PIPE FOR UNDERGROUND PIPELINE****SURFICIAL METAL SCRAP****AREA INDICATING WHERE BURIED METALLIC OBJECTS ARE LOCATED****△ BEDROCK WELL****⊕ PUMPING WELL (SAND)****○ SAND WELL**